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I. Cross Reference to Related Applications

This is a continuation-in-part application which claims priority from, U.S. Patent Application Serial No. 09/977,557, filed 10/15/01, U.S. Patent Application Serial No. 09/829,757 filed 4/10/01, which is a continuation-in-part application which claims priority from and incorporates by reference, U.S. Patent Application Serial Number 60/196,498, filed April 12, 2000, now abandoned, all bearing the same title and all incorporated by reference.

II. Technical Field of the Invention

The present invention pertains to an electrical digital computer machine and a data processing system, methods of making and for using the machine, products produced thereby, as well as data structures and articles of manufacture pertaining thereto, as well as all necessary intermediates, all in the field of computerized aspects of machine-based fitness training. More particularly, this invention relates to a digital electrical computer network and methods related thereto for enabling people to program a cardiovascular exercise routine on a personal computer or the like and then have that exercise routine downloaded to a piece of fitness equipment, such as a treadmill. In a more particular embodiment, a virtual private network, or web-based system, makes available a library of preprogrammed exercises, preferably with means for modifying a routine from the library, or for creating a new routine by selecting the type of cardiovascular fitness equipment, the duration of the exercise routine, the number of time intervals, the exercise intensity, and the speed for each interval. Customized routines are stored by the system for future use or reference. Ancillary features for use by a subscriber during a exercise routine are also provided.

III. Background of the Invention

Cardiovascular fitness equipment such as stationary bikes and treadmills, do not allow sufficient customization of the exercise routine by the person training with the equipment.

The person exercising is limited to a selection of, say, and just a dozen routines. Some physical fitness experts recommend a particular series of exercise intensity levels for specific time intervals. Physical fitness equipment does not provide an adequate programming interface to customize the exercise routine.

The known interfaces for cardiovascular fitness equipment are cumbersome for inputting data. Usually, the equipment also has a poor input device. Typically a keypad with a few, relatively small buttons is mounted on the cardiovascular fitness machine. The keypad is difficult to manipulate while exercising. For example, it is necessary to focus one's line of vision to a small keypad and press buttons to adjust the parameters of the exercise routine. If this is done while running on a treadmill, the person may lose their sense of balance or mistakenly enter incorrect values.

Typically, the interfacing of cardiovascular fitness equipment has poor graphical presentation and format. Usually the input screen is constructed of a series of LED lights. The graphical interface is uninteresting and does not offer a visually stimulating experience.

The state of the art, prior to the instant invention, cannot be said to be "user friendly." It is to the contrary—limited and cumbersome. Many people are indeed bored while exercising on physical fitness equipment. Perhaps this leads people to read magazines or watch television while exercising on treadmills and stationary bikes, as contrasted with being inspired or even engaged by the equipment. Or worse, the people do not exercise as much because it is not as much fun as other things.